

Isolating Variables

Name _____

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Solve each equation for the indicated variable.

1) $g = 3 + 4a$, for a

2) $g = 1 + 3a$, for a

3) $g = -1 - 2a$, for a

4) $g = \frac{4x}{5}$, for x

5) $u = 4y + 3x - 1$, for x

6) $z = -8b - 32ba$, for a

7) $u = -8ba - 4b$, for a

8) $z = \frac{10y + 3x}{5}$, for x

9) $3x = -4v + 4w$, for x

10) $u = -3y + 6x + 2$, for x

11) $g = -16a - 16 + 2b$, for a

12) $6a = -\frac{2d}{r}$, for a

$$13) \ z = 8 - 4a + 3b, \text{ for } a$$

$$14) \ g = \frac{9x}{20y}, \text{ for } x$$

$$15) \ 5a - 5c = -4b + 3d + 9r, \text{ for } a$$

$$16) \ z = 2(-3p - 2n + 3a - 4), \text{ for } a$$

$$17) \ 3zmx = x - 3, \text{ for } x$$

$$18) \ -6gx = 2x + 3y, \text{ for } x$$

Answers to Isolating Variables

$$1) a = \frac{g-3}{4}$$

$$2) a = \frac{g-1}{3}$$

$$3) a = \frac{-g-1}{2}$$

$$4) x = \frac{5g}{4}$$

$$5) x = \frac{u-4y+1}{3}$$

$$6) a = \frac{-z-8b}{32b}$$

$$7) a = \frac{-u-4b}{8b}$$

$$8) x = \frac{5z-10y}{3}$$

$$9) x = \frac{-4v+4w}{3}$$

$$10) x = \frac{u+3y-2}{6}$$

$$11) a = \frac{-g-16+2b}{16}$$

$$12) a = -\frac{d}{3r}$$

$$13) a = \frac{-z+8+3b}{4}$$

$$14) x = \frac{20gy}{9}$$

$$15) a = \frac{5c-4b+3d+9r}{5}$$

$$16) a = \frac{z+6p+4n+8}{6}$$

$$17) x = -\frac{3}{3zm-1}$$

$$18) x = \frac{3y}{-6g-2}$$